

Morphological diversification of Southern Ocean penguins

Lead Supervisor: Dr Jane Younger, Department of Biology & Biochemistry

Project description:

Penguins are vulnerable to the global transformations predicted by climate change. Potential impacts include rising sea temperatures, the extent of ice versus land, and the availability of food given warmer waters. In this PhD project, the candidate will aim to understand the ecological adaptations of penguins in the context of a rapidly changing environment. The candidate will use quantitative methods to assess whether different species or populations are limited to specific diets or habitats by their morphology, and if those traits may be able to adapt to different resources in the future. This project will make use of morphological data (measurements, photographs, and CT scans) from museum collections, and integrate these with existing datasets on diet, foraging strategies, and habitat.

This project is part of an international collaboration between Jane Younger (University of Bath), John Bates (Field Museum of Natural History), and Sushma Reddy (University of Minnesota). The candidate will have the benefit of interacting with world experts in avian evolution and ecology, and the opportunity to make significant advances in the emerging field of geometric morphometrics. Training will be provided in cutting-edge phylogenetic comparative methods and advanced multivariate statistics, providing the PhD candidate with a diverse skillset for a career in science.

Candidate:

Applicants should hold, or expect to receive, a First Class or high Upper Second Class UK Honours degree (or the equivalent qualification gained outside the UK) in a relevant subject. A master's level qualification would also be advantageous.

Applications:

Informal enquiries should be directed to Dr Jane Younger, jly26@bath.ac.uk.

Formal applications should be made via the University of Bath's [online application form](#).

On the application form, please ensure that you quote 'Evolution Education Trust' in the Finance section and the supervisor's name and project title in the 'Your research interests' section. Should you wish to be considered for more than project, quote the projects in order of preference and upload a separate personal statement relevant to each one.

Please see our Doctoral College website for [more information on how to apply](#) for a PhD at Bath.

Application deadline: 30 April 2019.

Interviews will take place in Bath on 14 June 2019.

Anticipated start date: 30 September 2019.